

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method, comprising:

determining ~~an area of weakness in parameters of~~ a ball grid array (BGA) package

having an array of solder balls; and

applying a bonder to the ~~area of weakness in parameters of~~ the BGA package,

wherein the bonder is applied independently of the array of solder balls,

and the bonder is applied surrounding the array of solder balls.
2. (Original) The method of claim 1, wherein the BGA package comprises:

an integrated circuit (IC) device;

a first surface coupled with the IC device;

a printed circuit board (PCB) having a second surface, the second surface aligned

with the first surface using the array of solder balls, wherein the array of

solder balls placed in between the first surface and the second surface; and

solder joints to attach the array of solder balls with the first surface and the second

surface.
3. (Original) The method of claim 1, wherein the applying of the bonder comprises

applying the bonder between the first surface and the second surface to provide

resistance to the BGA package against warpage.
4. (Original) The method of claim 3, wherein the warpage comprises at least one

of the following: opening, cracking, curving, bending, and breaking of the second

surface.
5. (Currently Amended) The method of claim 1, wherein the ~~area of weakness~~

~~comprises at least~~ bonder is further applied to one or more of the following: edges;

and corners, and perimeter of the BGA package.

6. (Original) The method of claim 1, wherein the applying of the bonder comprises applying the bonder using a bonder dispenser.
7. (Original) The method of claim 1, wherein the bonder comprises at least one of the following: a thermoplastic bonder and a silicon bonder.
8. (Currently Amended) The method of claim 1, wherein the applying of the bonder comprises applying the thermoplastic bonder using a hot melting jig or a dispenser, the hot melting jig and the dispenser comprise at least one of the following: ~~a Asymtek Dispenser System, a hot melt hand applicator, an ITW Dynamelt,~~ and an adhesive unit.
9. (Original) The method of claim 1, wherein the applying of the bonder comprises applying the silicon bonder using an epoxy dispenser machine.
10. (Original) The method of claim 1, wherein the independent application of the bonder is performed using software to control placement distance of the bonder with respect to the array of solder balls.
11. (Currently Amended) A method, comprising:
determining ~~an area of weakness in parameters of~~ a ball grid array (BGA)
package having an array of solder balls; and
applying ~~a thermoplastic bonder~~ bonder balls to the ~~area of weakness parameters~~
between a first surface and a second surface in the BGA package, wherein
the bonder balls are applied independently of the array of solder balls, and
the bonder balls are applied surrounding the array of solder balls.
12. (Cancelled)

13. (Currently Amended) The method of claim 11, wherein the bonder balls comprise thermoplastic bonder balls, ~~applying comprises applying the~~ thermoplastic bonder balls are applied after solder waving.
14. (Currently Amended) The method of claim ~~11~~13, wherein the thermoplastic bonder balls is~~are~~ applied using a hot melting jig or a dispenser, the hot melting jig and the dispenser comprise at least one of the following: ~~a Asymtek Dispenser System, a hot melt hand applicator, an ITW Dynamelt, and an adhesive unit.~~
15. (Original) A method, comprising:
determining an area of weakness in a ball grid array (BGA) package; and
applying a silicon bonder to the area of weakness between a first surface and a second surface in the BGA package.
16. (Cancelled)
17. (Currently Amended) The method of claim ~~15~~11, wherein bonder balls comprise silicon bonder balls, ~~the applying comprises applying the~~ silicon bonder balls are applied prior to solder reflowing.
18. (Currently Amended) The method of claim ~~15~~17, wherein the silicon bonder balls is~~are~~ applied using an epoxy dispenser machine with silicon volume.

Claims 19-29 (Cancelled)